S05 VoIP Phone

User Manual

V.05

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Telephone function:

1、Protocol support: SIP（RFC2543，RFC3261）;
2、Display and store 64 groups of incoming calls;
3、Display and store 64 groups of outgoing calls;
4、Phone Book with 140 groups memory
5、Hand-free dialing functions, count time of calling automatically;
6、Review, delete, redial Incoming calls/outgoing calls;
7、Block function;
8、Roaming function;
9、Check local number;
10、Pre-dial function;
11、Display date and time;
12、Hold with music;
13、PPPoE;
14、Dynamic and static IP address;
15、Support voice code format: G.711A/U, G.723.1, G.729A/B, G.726; VAD/CNG
16、User authentication;
17、TCP/IP(ARP/RARP 、IP/ICMP、UDP/TCP/IP、RTP/RTCP);
18、TFTP and Console function;
19、IEEE 802.1P/802.1Q/ToS u 10 Base T/100Base TX;
20、DNS;
21、Transfer calls function;
22、Three-way conversation;
23、Call waiting function;
24、Call forward function;
25、DDNS function
26、Remote software updates/upgrades;
27、Hand-free;

Main technology parameter:

1. AC/DC adaptor---------Input: AC 240/100V;Output: 9V DC, 1000mA
2. Support DHCP client and static IP address
3. Support PPPoE (for ADSL, Cable Modem)
4. Upgradeable software
5. Support voice code format: G.711A/U, G.723.1, G.729A/B, G.726
6. Voice activity detection, Comfortable noise generator, Adaptive jitter buffer
7. G.165 16ms echo cancellation
8. Signaling tone of ITU-T standard, DTMF
9. Support dialing standard base on E.164 code

1 Introduction

This user manual is for S05 IP phone. Before using the IP Phone, some configurations are required to make the IP Phone work properly. The manual will illustrate how to configure the ip phone via keypad, web page and console.

1.1 Hardware Overview

Two RJ-45 Networking interfaces support 10/100Mps Fast Ethernet. User can connect one of them to ADSL or Switch, the other one to PC computer. By default, WAN is a DHCP client. LAN's ip is 192.168.123.1 and can provide DHCP service.

One RJ-11 analog telephone jack is used to connect to the PSTN Line.

Passed FCC, CE authentication

Wide-range power adaptor（From 100V to 240V）

1.2 Software Overview

Network Protocol

- SIP v1 (RFC2543), v2(RFC3261)
- IP/TCP/UDP/RTP/RTCP
- IP/ICMP/ARP/RARP/SNTP
- TFTP Client/DHCP Client/ PPPoE Client
- Telnet/HTTP Server
- DNS Client

Codec

- G.711: 64k bit/s (PCM)
- G.723.1: 6.3k / 5.3k bit/s
- G.726: 16k / 24k / 32k / 40k bit/s (ADPCM)
- G.729A: 8k bit/s (CS-ACELP)
- G.729B: adds VAD & CNG to G.729

Voice Quality

- VAD: Voice activity detection
- CNG: Comfortable noise generator
- LEC: Line echo canceller
- Packet Loss Compensation
- Adaptive Jitter Buffer

Call Function

- Call Hold
- Call Waiting
- Call Forward
- Caller ID
- 3-way conference

DTMF

- In-Band DTMF
- RFC 2833 DTMF
- SIP Info

SIP Server

Tone

- Ring Tone
- Ring Back Tone
- Dial Tone
- Busy Tone
- Programming Tone

Phone Function

- Volume Adjustment
- Speed dial key
- Phonebook
- Flash
- Hand-free function

IP Assignment

- IP（Static IP）
- DHCP
- PPPoE

Security

- HTTP 1.1 basic/digest authentication for Web setup
- MD5 for SIP authentication (RFC2069/ RFC 2617)

QoS

- ToS field

NAT Traversal

- STUN

Configuration

- Web Browser
- Console/Telnet
- Keypad

Firmware Upgrade

• Registrar Server (three SIP account) • Outbound Proxy	• TFTP • Console • HTTP • FTP

2 Setup the IP Phone system by using keypad

2.1 Keypad Description

Key Name	Description	Note
1	“1”, “-“, “,”, “!”, “?”	
2	“2”, “a”, “b”, “c”, “A”, “B”, “C”	
3	“3”, “d”, “e”, ”f”, “D”, “E”, “F”	
4	“4”, “g”, “h”, “I”, “G”, “H”, “I”	
5	“5”, “j”, “k”, “l”, “J”, “K”, “L”	
6	“6”, “m”, “n”, “o”, “M”, “N”, “O”	
7	“7”, “p”, “q”, “r”, “s”, “P”, “Q”, “R”, ‘S”	
8	“8”, “t”, “u”, “v”, “T”, “U”, “V”	
9	“9”, “w”, “x”, “y”, “z”, “W”, “X”, “Y”, “Z”	
0	“0”, “space”	
*	“*”, “•”, “:”, “@”	
#	Start dialing process	
PHONEBOOK	Phonebook	
CID	Incoming call list	
Out	Out going call list	
ENTER	“OK”, accept setting	
MENU	“Menu” key to set the IP Phone	
UP/DOWN	Up↑ and Down↓ key	
LEFT/RIGHT	Left← and Right→ key	
Volume -/+	Volume control	
FLASH	Flash key	
DEL	“Delete”, delete word or phone number	
REDIAL	“REDIAL” the same number again	
H-F	Hand Free	
M1~M4	4 speed dial numbers	
Line1~Line2	the Line1 to Line2	
HOLD	“HOLD” function	
CONF	Three way conference	
FWD	Forward key	
DND	Do Not Disturb	

2.1.1 Outgoing calls

Press “OUT” button, LCD will display the outgoing. Press “UP” or “DOWN” to review all outgoing call numbers and conversation time.

2.1.2 Caller ID function

Press “CID” key, LCD will show incoming call numbers and conversation time, using “UP” or “DOWN” to review all incoming calls number.

2.1.3 Talking volume control

During conversation, press “VOL+” or “VOL-” to adjust volume.

2.1.4 Phone-Book function（Total 140 groups of numbers）

1) Press “PHONBOOK” key to enter into display mode, LCD shows the total groups you have stored. If nothing stored, LCD will display “P-Book is empty”.
2) In display mode, input the name of your stored number, press “ENTER”, LCD will display the number. Then press “H-F” or pick up the handset, the present number will be dialed out automatically.
3) In display mode, press “ENTER” button to enter into name check status, using “UP” or “DOWN” to review.
4) In display mode, press “ENTER” button to enter into name check status, press “ENTER” key again to enter into modify mode. Use keypad to modify name. Press “ENTER” one more time to modify call numbers. After finishing, press “ENTER” to confirm.
5) In display mode, press “ENTER” key to enter into name check status, using “UP” or “DOWN” to review. At this time, press “DEL” to delete the present call number.

2.1.5 DND function

Press “DND” button, LCD will display “#DND#”. The ip phone will refuse all of incoming calls. Press “DND” again to quit DND.

2.1.6 Hold with music

1) When you are receiving a call on LINE1, there is an incoming call from LINE2. Now press “HOLD” button to hold on the line1, and press “Line2” to start conversation with LINE2.
2) Press “Line1” to quit holding status.

2.1.7 Call forward

After setting forward number, press FWD key to enter into forward mode. LCD display “# Forward #”, press FWD key again to quit. The forward number must be a speed dial number.

2.1.8 Three-way conference

During conversation on Line1, press “HOLD”, and then press LINE2 to dial another number. After connecting though with Line2, press “CONF” to start three-way conference.

2.1.9 Speed dial function

After setting speed dial number, the M1~M4 button stands for 0-3 speed dial number. Press “0~9” and “#” button to dial out the corresponding speed dial number.

2.1.10 Transfer between LINE1 and LINE2

1) When you are receiving a call, there is another incoming call. The LCD will show you which line the incoming call comes from. Press HOLD and LINE1 or LINE2 (the

line that the latter incoming call comes from), then you can answer the latter call. Press LINE2 or LINE1, which the former call is on, you will return to the former call.

2) When you are receiving a call, there is another incoming call. The LCD will show you which line the incoming call comes from. Press HOLD and LINE1 or LINE2 (the line that the latter incoming call comes from), then you can answer the latter call. Press CONF to start three-way conference.

2.2 Keypad Function and Setting List

A. Press "MENU" button to enter into setting list. Press "UP" or "DOWN" to choose items, then press "ENTER" to enter into submenu of the item. Move cursor through "LEFT/RIGHT" and modify content by keypad. After finishing setting, press ENTER to confirm and return to the parent menu. Press MENU to return to parent menu without confirm.

B、Menu list:

1、Phone Book
2、Call history
3、Phone setting
4、Network
5、SIP Settings
6、NAT transversal
7、Administrate

C、All configuration will be effective after reboot.

2.2.1 Phone Book

1) Search: Search Phone Book.
2) Add entry: Add new phone number to phone book.
3) Speed dial: Add speed dial phone number to speed dial list.
4) Erase all: Erase all phone number from Phone Book.

2.2.2 Call history

1) Incoming calls: Show all incoming call.
2) Dialed numbers: Show all dialed call.
3) Erase record: Delete call history.
   All: Delete all call history.
   Incoming: Delete all incoming call.
   Dialed: Delete all dialed call.

2.2.3 Phone setting

2.2.3.1 Call forward

2.2.3.1.1 All Forward.

1. Activation
2. Number:

2.2.3.1.2 Busy Forward.

1. Activation
2. Number:

2.2.3.1.3 No Answer Forward.

1. Activation
2. Number

2.2.3.1.4 Ring Timeout: set call transfer time. For example, if you input 3 here, incoming call will be forwarded after 3 rings.

2.2.3.2 Block Setting

1) All incoming
2) By Time
3) Duration

2.2.3.3 Date/Time setting

2.2.3.3.1 Date & Time: Set the IP Phone Date and Time.

2.2.3.3.2 SNTP

1) SNTP: Enabled/Disable SNTP.
2) Primary SNTP
3) Secondary SNTP
4) Time zone
5) Adjustment Time

2.2.3.4 Volume&Gain

1) Handset volume: Set Handset volume from 0 to 15.
2) Speaker volume: Set Speaker phone volume from 0 to 15.
3) Handset Gain Set handset gain from 0 to 15.
4) Speaker Gain: Set speaker gain from 0 to 15.

2.2.3.5 Ringer

1) Ringer volume: from 0 to 10.
2) Ringer type: Ringer type selection from 1 to 4.

2.2.3.6 Auto Dial（3sec—9sec）

After auto dial time, the number will be sent out without dialing #. Default is 5 seconds.

2.2.4 Network

2.2.4.1 WAN Setup

2.2.4.1.1 IP Type

1) Fixed IP
2) DHCP client
3) PPPoE client

2.2.4.1.2 Fixed IP setting

1) Host IP
2) Network mask:
3) Gateway IP
4) MAC address

2.2.4.1.3 PPPoE

1) User name
2) Password

2.2.4.2 LAN Setup

1) Bridge
2) NAT

2.2.4.3 DNS

1) Primary DNS
2) Secondary DNS

2.2.4.4 VLAN

1) Activation: enable/disable VLAN
2) VID: 2~4094
3) Priority: 0~7
4) CFI: 0 or 1

2.2.4.5 Status: show the ip and mac addresses of the ip phone.

2.2.5 SIP Settings

2.2.5.1 Service domain

2.2.5.1.1 First realm:

1) Activation
2) User name
3) Display name
4) Register name
5) Register password
6) Proxy server:
7) Domain server
8) Outbound proxy

2.2.5.1.2 Second realm:

1) Activation
2) User name
3) Display name
4) Register name
5) Register password
6) Proxy server
7) Domain server
8) Outbound proxy

2.2.5.1.3 Third realm:

1) Activation:
2) User name
3) Display name
4) Register name
5) Register password
6) Proxy server
7) Domain server
8) Outbound proxy

2.2.5.2 Codec

2.2.5.2.1 Codec type:

1) G.711 uLaw
2) G.711 aLaw
3) G.723
4) G.729
5) G.726-16

6) G.726-24
7) G.726-32
8) G.726-40

2.2.5.2.2 VAD: Voice Activity Detection

2.2.5.3 RTP setting
2.2.5.3.1 Outband DTMF
2.2.5.3.2 Duplicate RTP

1) No duplicate
2) One duplicate
3) Two duplicate

2.2.5.4 RPort Setting: Enable/Disable RPort
2.2.5.5 Hold by RFC
2.2.5.6 Status:

1) First Realm
2) Second Realm
3) Third Realm

2.2.6 NAT Transversal
2.2.6.1 STUN setting

1) STUN: enable/disable STUN
2) STUN server

2.2.7 Administrate
2.2.7.1 Auto Config:

1) Config mode
2) TFTP server
3) FTP server
4) FTP Login Name
5) FTP Password

2.2.7.2 Default setting:

1) Load default:
2) Abort

2.2.7.3 System Authentication: if you want to configure SIP settings by keypad, you have to input password here.
2.2.7.4 Version
2.2.7.5 Watch dog: enable/disable Watch dog.
2.2.7.6 Restart

3 Setup the IP Phone system by using Web Browser

You can use Web browser to configure the IP Phone. First input the IP address in the Web browser. In the end of IP address, please add the port number ":9999". Ex: http://192.168.123.1.:9999. By default, NAT is on, LAN's IP address is 192.168.123.1，WAN is DHCP client. In order to configure the IP Phone, your PC must be in the same subnet as the IP Phone. Go to NETWORK menu to check the WAN's IP.

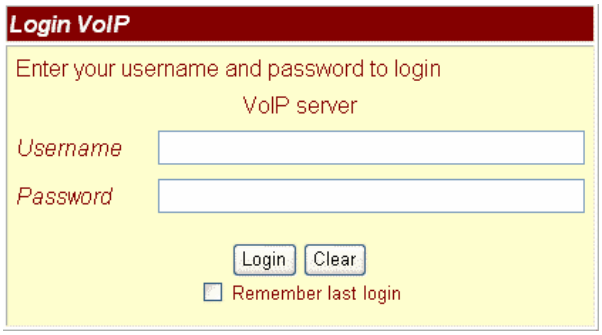
3.1 Login

Please input the username and password into the blank field. The default setting is:

1) For Administrator, the username is: root; and the password is: test. If you use the account login, you can configure all the setting.
2) For normal user, the username is: user; and the password is: test. If you use the account login, you cannot configure the SIP setting.

Click the "Login" button to go to configuration web page.

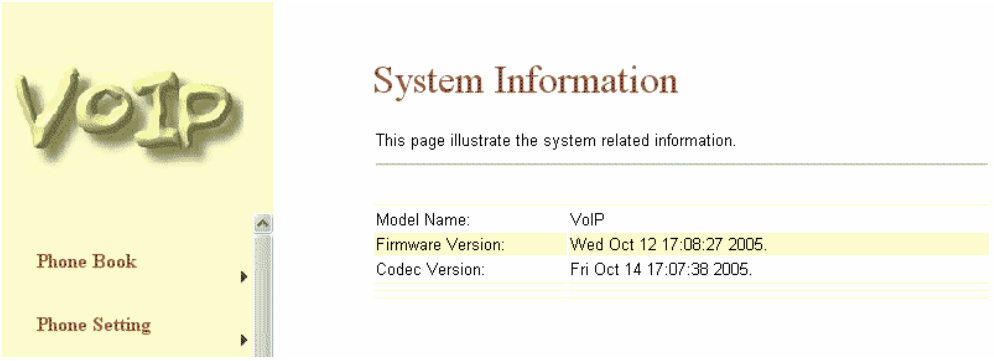
Note: If you change the setting in a web page, please do remember to click the "Submit" button in that page. After finishing setting, click the "Save change" function in the left side, and then click the Save Button. The IP Phone will reboot automatically, and the new configuration will be effective after reboot.



3.2 System Information

After login the web page, you can see the system information like firmware version, model name and so on in this page.

In addition, you can see the function list in the left side. You can use mouse to click the function you want to set up.



3.3 Phone Book

In Phone Book function, you can setup the Phone Book and Speed Dial setting. The phone book can store up to 140 groups of number. The speed dial can have 10 entries. Press any one of 0~9, the corresponding number will dial out.

3.3.1 In phone book, you can add/delete phone number.

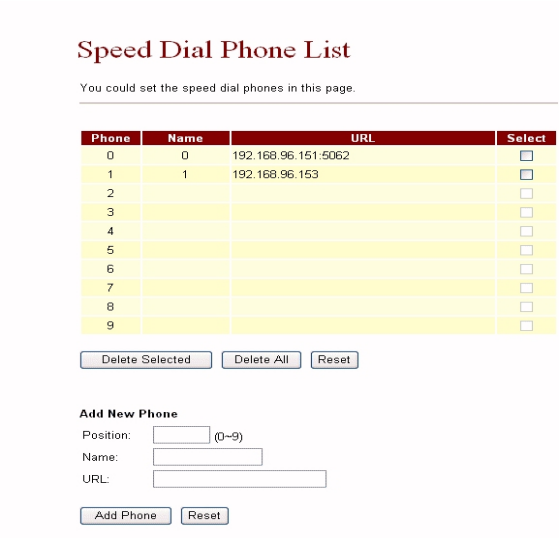
3.3.1.1 If you want to add phone number in Phone Book, you need input position, name, URL (ie. Phone number). After input, please click “Add Phone” button.

3.3.1.2 To delete a group of number, first select the number, and then click “Delete Selected” button to delete selected number.

3.3.1.3 To delete all number, click “Delete All” button, a dialogue window will show up. Click OK button to delete all numbers.

3.3.2 In Speed Dial setting function, you can add/delete Speed Dial number. You can input maximum 10 entries into speed dial list.

3.3.2.1 To add a phone number into the Speed Dial list, you need input position, name, and URL. After finishing input, click "Add Phone" button.



3.3.2.2 To delete a group of number, first select the number, and then click "Delete Selected" button to delete selected number.

3.3.2.3 To delete all number, click "Delete All" button, a dialogue window will show up. Click OK button to delete all numbers.

3.4 Phone Setting

Phone Setting contains Call Forward, SNTP Settings, Volume Settings, Ringer Setting, Block Setting, Auto Answer, Dial Plan, Flash Time Settings, Call Waiting and Soft key.

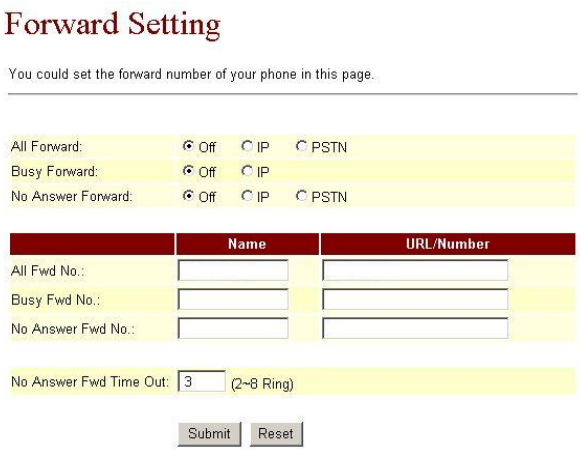
3.4.1 Call Forward function: you can setup the phone number you want to forward in this page. There are three type of Forward mode. You can choose between All Forward, Busy Forward, and No Answer Forward.

3.4.1.1 All Forward: All incoming call will forward to the number you choosed. First you have to choose between IP and PSTN. Then you can input the name and the phone number in URL field.

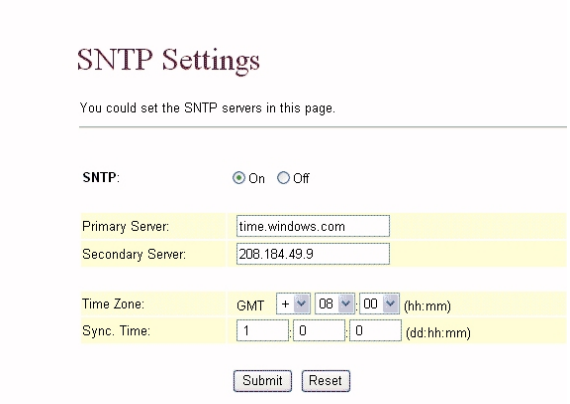
3.4.1.2 Busy Forward: If you are on the phone, the new incoming call will forward to the number you choosed.

3.4.1.3 No Answer Forward: If you can not answer the phone, the incoming call will forward to the number you choosed. Also you have to set the Time Out time for system to start forwarding the call to the number you choosed.

After finishing the setting, please click the Submit button.

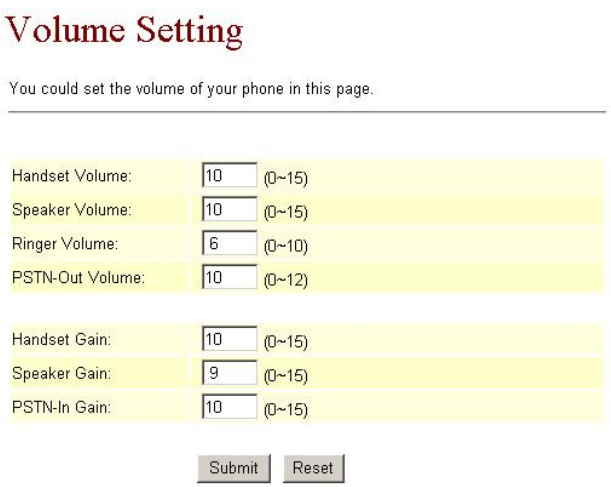


3.4.2 SNTP settings: you can set primary and secondary SNTP server to get date/time information. You also need set Time Zone and Sync Time. After finishing the setting, please click the Submit button.

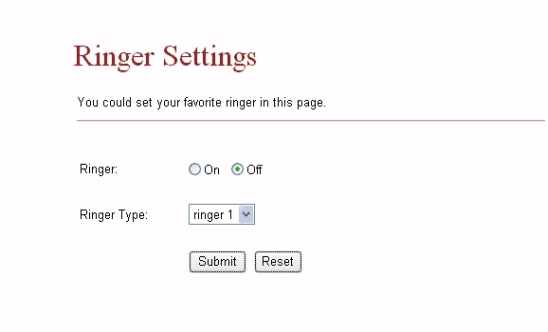

SNTP Settings
You could set the SNTP servers in this page.
SNTP: On Off
Primary Server: time.windows.com
Secondary Server: 208.184.49.9
Time Zone: GMT + 08 : 00 (hh:mm)
Sync. Time: 1 : 0 : 0 (dd:hh:mm)
Submit
Reset

3.4.3 Volume Setting: you can setup Handset Volume, Speaker Volume, Ringer Volume, PSTN-Out Volume, Handset Gain, Speaker Gain and PSTN-In Gain. When you finished the setting, please click the Submit button.

1) Handset Volume: (0-15)
2) Speaker Volume: (0-15)
3) Ringer Volume: (0-10)
4) PSTN-Out Volume: (0-12)
5) Handset Gain: (0-15)
6) Speaker Gain: (0-15)
7) PSTN-In Gain: (0-15)



3.4.4 Ringer setting: you can select a ringer for incoming call. (total 4 types). When you finished the setting, please click the Submit button.

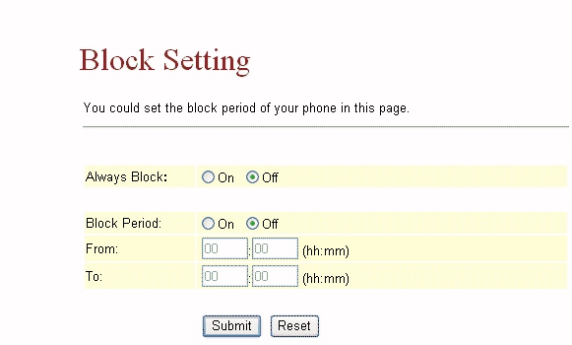


3.4.5 Block Setting function: you can setup the Block Setting to keep the phone slience. You can choose Always Block or Block a period.

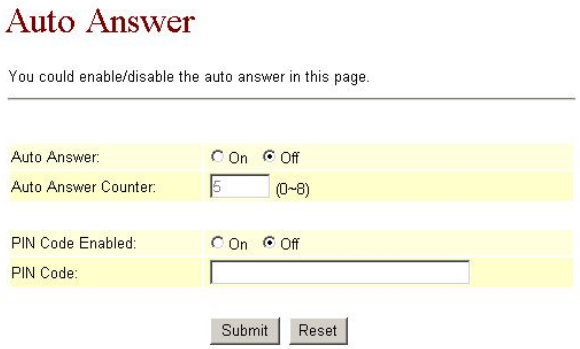
3.4.5.1 Always Block: All incoming call will be blocked until disable this feature.

3.4.5.2 Block Period: Set a time period and the phone will be blocked during the time period. If the "From" time is larger than the "To" time, the "To" time will be regarded as next day's time.

When you finished the setting, please click the Submit button.


Block Setting
You could set the block period of your phone in this page.
Always Block: On Off
Block Period: On Off
From: 00 : 00 (hh:mm)
To: 00 : 00 (hh:mm)
Submit
Reset

3.4.6 Auto Answer function: You can set the Auto Answer function to answer the incoming call by the phone. If the call is come from the IP, then the phone can let user to redial the call to PSTN phone number. If the call is coming from PSTN, then the phone can let user to redial to IP Phone number. After the ring count meet the number you set in Auto Answer Counter, then the auto answer will enable.



3.4.7 Dial Plan: This function provides basic dial number replacement rule. The function only provides addition and replacement rule without reduction rule.

3.4.7.1 Replace prefix code: If set as On, Replace rule will take effect.

3.4.7.2 Replace rule: Replace the dialed number with new send out number.

Example:

1. Replace rule is 001→005

Dial number is 001+86+755+27602040; Send out Number will be 005-+86+755+27602040.

2. Replace rule is 001+009+006→005

Dial number is 001+86+755+27602040; Send out Number will be 005-+86+755+27602040.

Dial number is 009+86+755+27602040; Send out Number will be 005-+86+755+27602040.

Dial number is 006+86+755+27602040; Send out Number will be 005-+86+755+27602040.

3.4.7.3 Dial plan: If dial number accords with dial plan, the dial number will be send out directly. However, the first code of dial plan must not be 0. Because 0 is an indication of not applying dial plan. So, when dial plan is 0xxxx, the system will not send out number according to dial plan.

Example:

1. Dial Plan is *xx

Dial number is *0#, send out number will be *0#.

2. Dial Plan is 11x

Dial number is 118; send out number will be 118.

Note: If dial number accords with dial plan, prefix code will be ignored.

Item	Explanation
*xx	If dial number is *xx, it will be sent out. Such as: *00, *01, *02, ……*99
#xx	If dial number is #xx, it will be sent out. Such as: #00, #01, #02, ……#99
10x	If dial number is 10x, it will be sent out. Such as: 100, 101, 102, ……109
11x	If dial number is 11x, it will be sent out. Such as: 110, 111, 112, ……119
xxxxxxxx	If dial number is 8 digits, it will be sent out. Such as: 12345678

3.4.7.4 Auto Prefix: Set the prefix that automatically added to dial number. Prefix's range is 0000~9999.

Example:

1. Auto Prefix is 9

Dial number is 070073; send out number will be 9070073

2. Auto Prefix is 0700

Dial number is 070073; send out number will be 0700070073

3.4.7.5 Prefix Unset Plan: If the first digit or the length of dial number accords with Prefix Unset Plan, Auto Prefix will not be added.

Example:

1. Auto Prefix is 07, Prefix Unset Plan is 0

Dial number is 0075; send out number will be 0075

2. Auto Prefix is 07, Prefix Unset Plan is 1

Dial number is 0075; send out number will be 070075

Dial number is 10075; send out number will be 10075

3. Auto Prefix is 07; Prefix Unset Plan is 0+1

Dial number is 0075; send out number will be 0075

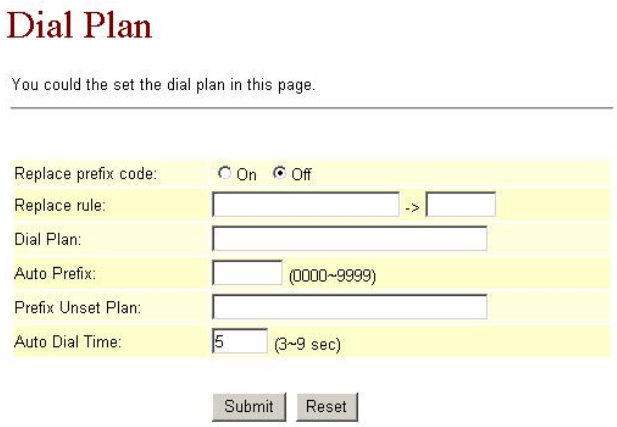
Dial number is 1075; send out number will be 1075

Dial number is 2075; send out number will be 072075

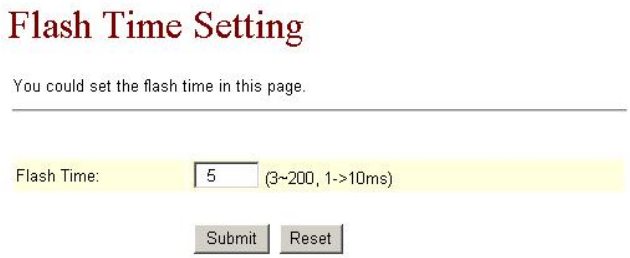
Item	Explanation
0	If the first digit of dial number is 0, Auto Prefix will not be added.
1	If the first digit of dial number is 1, Auto Prefix will not be added.
xxxx	If the length of dial number is 4, Auto Prefix will not be added.
xxxxxx	If the length of dial number is 6, Auto Prefix will not be added.

3.4.7.6 Auto Dial Time: After a duration of auto dial time, the system will send out dial number without pressing "#".

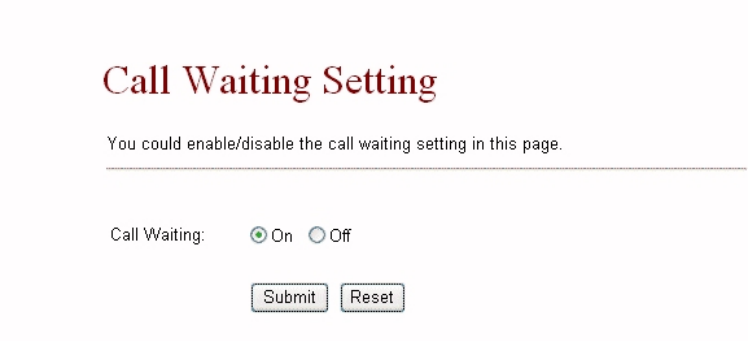
Item	Explanation
x	Stands for a digit, such as 0,1,2,3,4
+	Means "or", such as 01+02 means 01 or 02.



3.4.8 Flash Time Settings: Set the Flash Time.



3.4.9 Call Waiting Setting function: You can Enable/Disable the Call Waiting function, When you are talking with someone, there is a new incoming call, you will hear the call waiting tone.

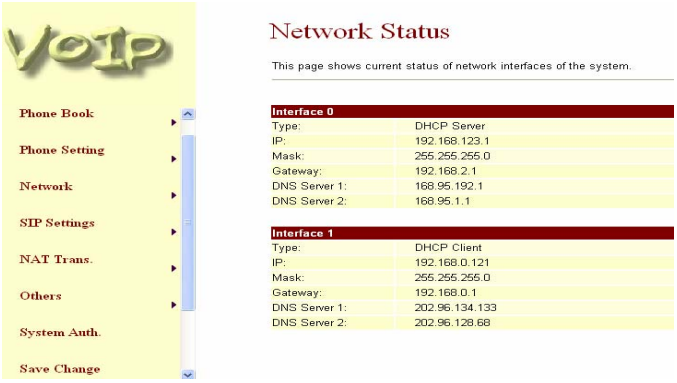


3.4.10 Soft-key Setting: you can set Pick up key and Voice mail key here.

3.5 Network

In Network you can check the Network status, configure the Network Settings, DDNS settings and VLAN settings.

3.5.1 Network Status:in this page you can check thecurrent network setting.



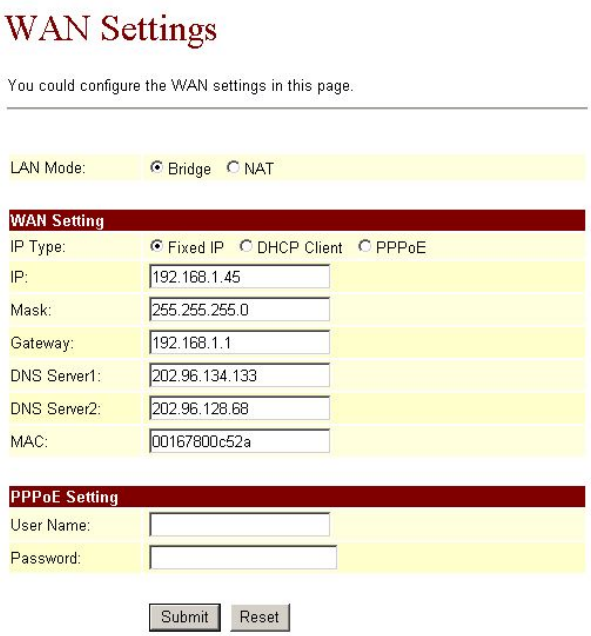
3.5.2 WAN Settings

3.5.2.1 Bridge settings: Enable/disable bridge mode. If you set the Bridge On, then the two Fast Ethernet ports will be transparent

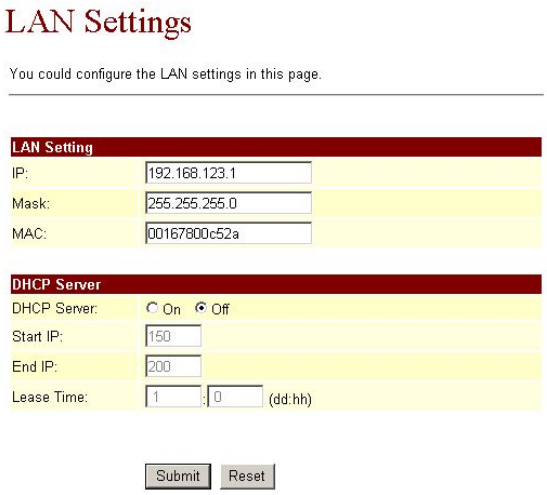
3.5.2.2 WAN Settings: Set network parameters for WAN. WAN can obtain IP address through 3 methods: fixed IP, DHCP client, PPPoE. You may refer to your current network environment to configure the IP Phone properly.

3.5.2.3 The PPPoE Setting: Set PPPoE Username and Password. If you have the PPPoE account from your Service Provider, please input the Username and the Password correctly.

When you finished the setting, please click the Submit button.

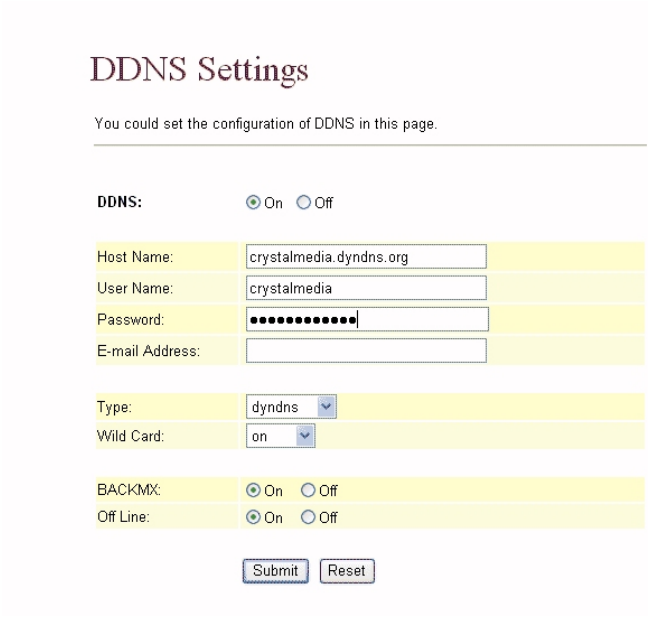


3.5.3 LAN Settings: Set network parameters for LAN.You may refer to your current network environment to configure the IP Phone properly. When you finished the setting, please click the Submit button.

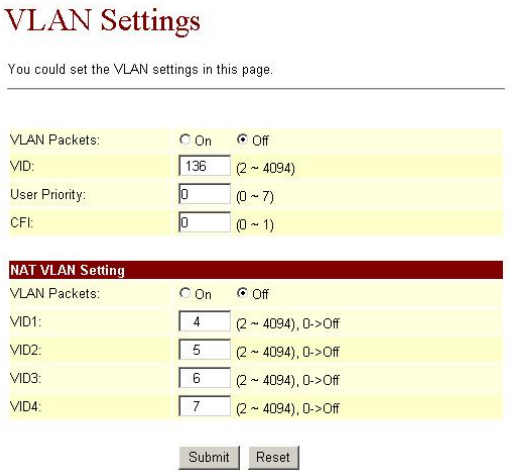


3.5.4 DDNS Setting: You can configure the DDNS setting in this page. You need to have the DDNS account and input the informations properly. If you have a DDNS account with a

public IP address, others can call you via the DDNS account. But now most of the VoIP applications work with a SIP Proxy Server. When you finished the setting, please click the Submit button.



3.5.5 VLAN Settings


VLAN Settings
You could set the VLAN settings in this page.
VLAN Packets: On Off
VID: 136 (2 ~ 4094)
User Priority: 0 (0 ~ 7)
CFI: 0 (0 ~ 1)
NAT VLAN Setting
VLAN Packets: On Off
VID1: 4 (2 ~ 4094), 0->Off
VID2: 5 (2 ~ 4094), 0->Off
VID3: 6 (2 ~ 4094), 0->Off
VID4: 7 (2 ~ 4094), 0->Off
Submit
Reset

3.6 SIP Settings

In SIP Settings you can setup the Service Domain, Port Settings, Codec Settings, Codec ID Setting, DTMF Setting, RPort Setting and Other Settings. If the VoIP service is provided by ISP, you have to setup the related information correctly so that you can register to the SIP Proxy Server successfully.

3.6.1 In Service Domain Function you need to input the account and the related informations in this page. Please refer to your ISP provider. You can register three SIP accounts in the IP Phone. You can dial the VoIP phone to your friends via first enabled SIP account and receive the phone from these three SIP accounts.

First, you need click Active to enable the Service Domain, and then you can input the

following items:

Display Name: you can input the name you want to display.

User Name: you need to input the User Name got from your ISP.

Register Name: you need to input the Register Name got from your ISP.

Register Password: you need to input the Register Password got from your ISP.

Domain Server: you need to input the Domain Server got from your ISP.

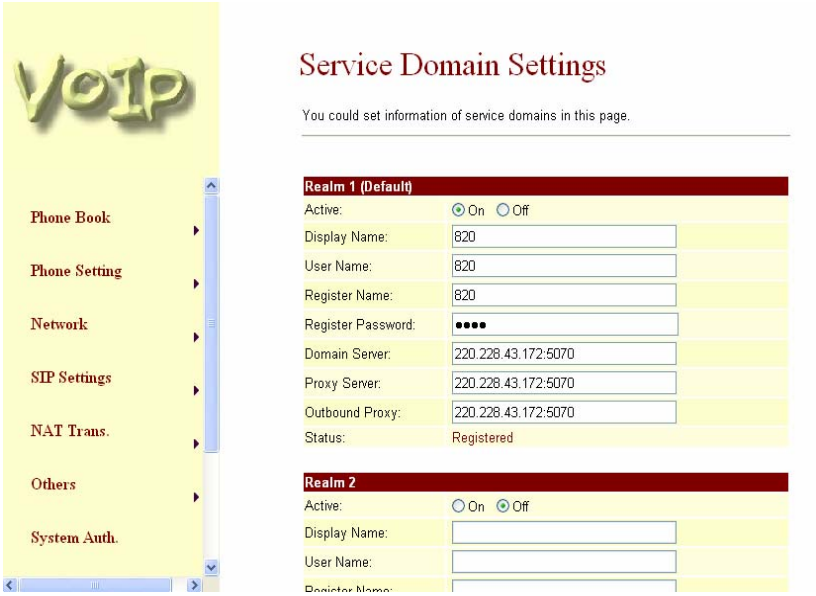
Proxy Server: you need to input the Proxy Server got from your ISP.

Outbound Proxy: you need to input the Outbound Proxy got from your ISP. If your ISP does not provide the information, you can skip this item.

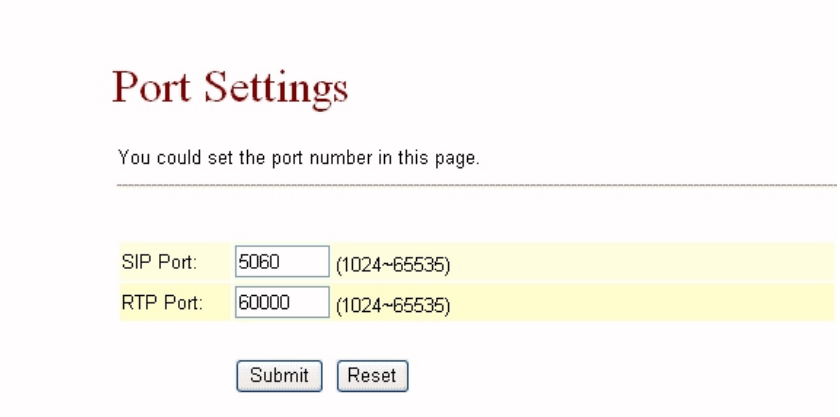
Status: You can see the Register Status in the Status item. If the item shows “Registered”, then your IP Phone register to the ISP, you can make a phone call now.

If you have more than one SIP account, you can follow the steps to register to the other ISP.

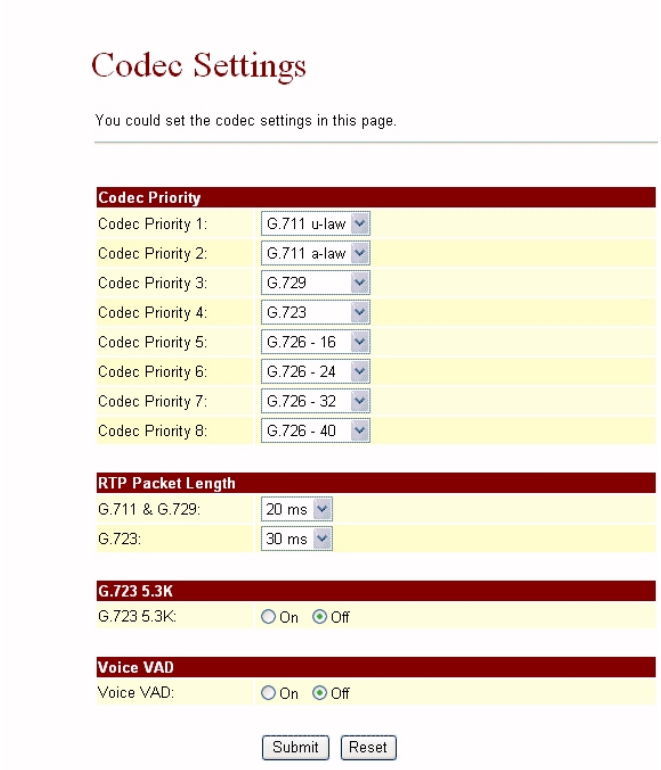
When you finished the setting, please click the Submit button.



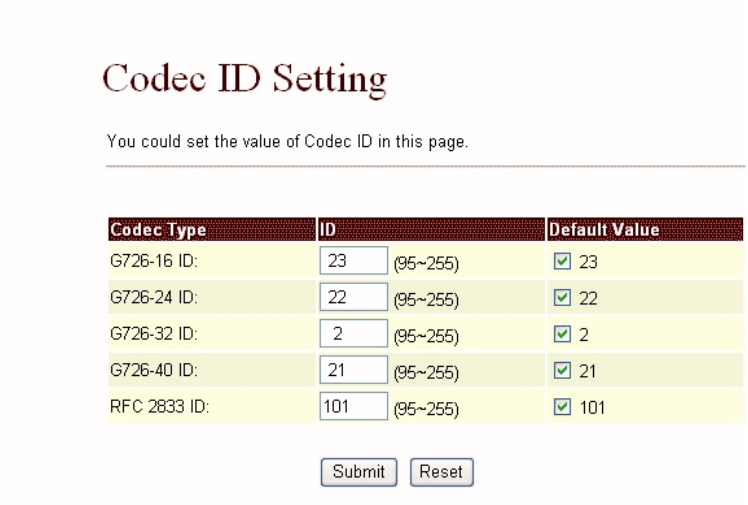
3.6.2 Port Settings: you can setup the SIP and RTP port number in this page. Each ISP provider will have different SIP/RTPport setting, please refer to the ISP to setup the port number correctly. When you finished the setting, please click the Submit button.



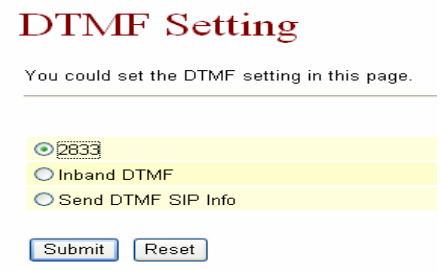
3.6.3 Codec Settings: you can setup the Codec priority, RTP packet length, and VAD function in this page. You need to follow the ISP suggestion to setup these items. When you finished the setting, please click the Submit button.


Codec Settings
You could set the codec settings in this page.
Codec Priority
Codec Priority 1: G.711 u-law
Codec Priority 2: G.711 a-law
Codec Priority 3: G.729
Codec Priority 4: G.723
Codec Priority 5: G.726 - 16
Codec Priority 6: G.726 - 24
Codec Priority 7: G.726 - 32
Codec Priority 8: G.726 - 40
RTP Packet Length
G.711 & G.729: 20 ms
G.723: 30 ms
G.723 5.3K
G.723 5.3K: On Off
Voice VAD
Voice VAD: On Off
Submit Reset

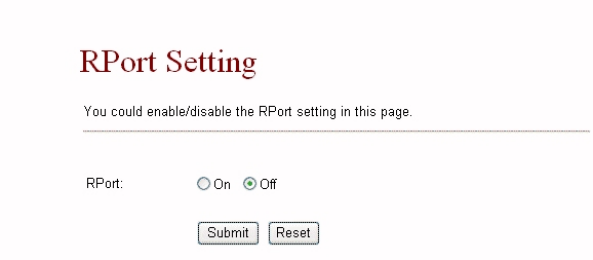
3.6.4 Codec ID Setting: Sometimes 2 VoIP devices with different Codec ID will cause some problems. If there are some problems when you are talking with others, you may ask the other one what Codec ID he is useing, and change your Codec ID to the same as his. When you finished the setting, please click the Submit button.


Codec ID Setting
You could set the value of Codec ID in this page.
Codec Type ID Default Value
G726-16 ID: 23 (95~255) 23
G726-24 ID: 22 (95~255) 22
G726-32 ID: 2 (95~255) 2
G726-40 ID: 21 (95~255) 21
RFC 2833 ID: 101 (95~255) 101
Submit Reset

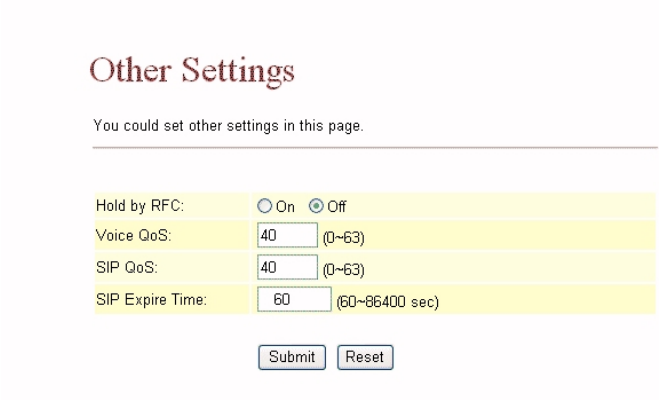
3.6.5 DTMF Setting: Choose between 2833, Inband DTMF and Send DTMF SIP Info. Please refer to your ISP for correct setting. When you finished the setting, please click the Submit button.



3.6.6 RPort Setting: Enable/Disable RPort. To change this setting, please following your ISP's information. When you finished the setting, please click the Submit button.

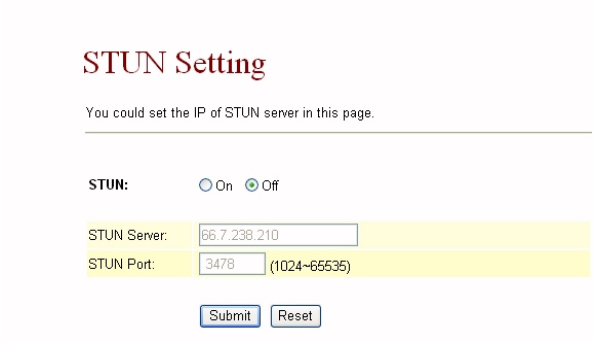


3.6.7 Other Settings: you can setup the Hold by RFC, Voice/SIP QoS and SIP expire time in this page. To change these settings please following your ISP's information. The QoS setting is to set the voice packets' priority. If you set the value higher, the voice packets will get higher priority. But the QoS function still need to cooperate with the others Internet devices. When you finished the setting, please click the Submit button.



3.7 NAT Trans

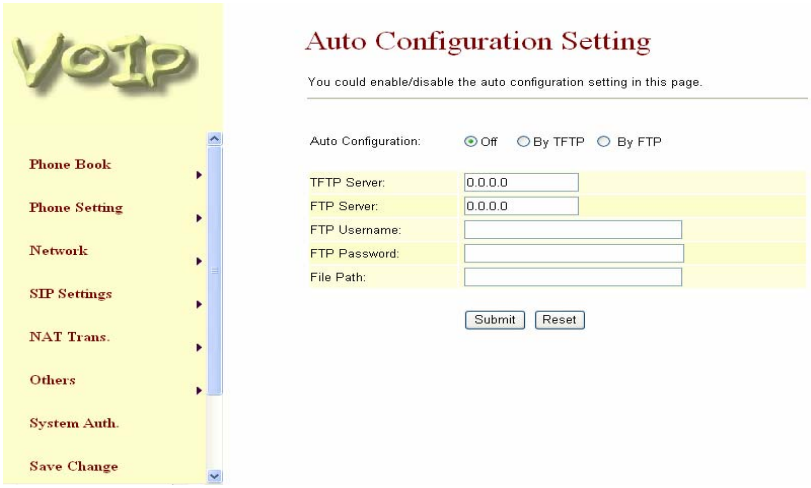
3.7.1 STUN Setting: you can setup the STUN Enable/Disable and STUN Server IP address in this page. This function can help your IP Phone working properly behind NAT. To change these settings please following your ISP information. When you finished the setting, please click the Submit button.



3.8 Other

This page is for "Auto Config" and "ICMP Setting" configuration.

3.8.1 Auto Config: Please set these according to your need. When you finished the setting, please click the Submit button.



3.8.2 PTT Setting: Please set this according to your country's standard.

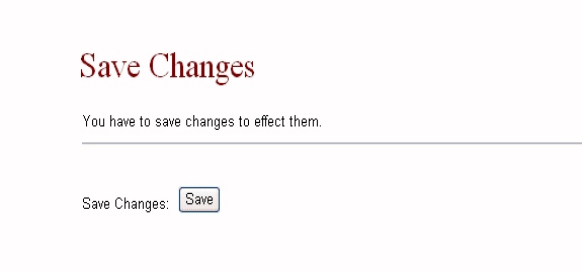
3.8.3 ICMP Setting: Enable/disable ICMP echo. Echo off is helpful to avoid being attacked by hackers. When you finished the setting, please click the Submit button.

3.9 System Auth.

In System Authority you can change your login name and password.

3.10 Save Change

In Save Change you can save the changes you have made. If you want to make new setting into effect, you have to click the Save button. After you click the Save button, the IP Phone will automatically restart and the new setting will take effect.

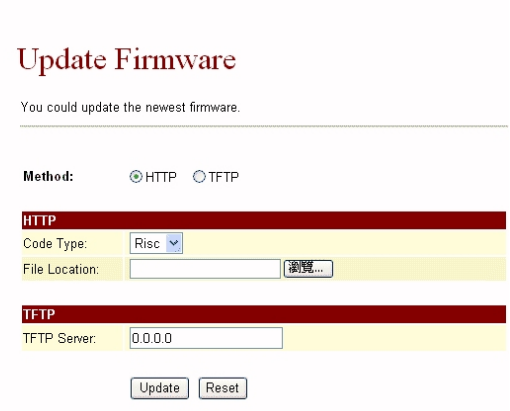


3.11 Update

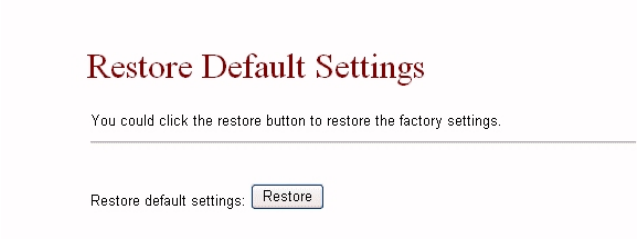
In Update you can update the IP Phone's firmware to the latest or restore the factory setting.

3.11.1 In New Firmware function you can update new firmware via HTTP/TFTP in this page. You can ugrade the firmware by the following steps:

1) Select the firmware code type, Risc or DSP code.
2) Click the "Browse" button in the right side of the File Location, or you can type the correct path and the filename in File Location blank.
3) Select the correct file you want to download to the IP Phone then click the Update button.



3.11.2 In Default Setting you can restore the VoIP Phone to factory default in this page. You can just click the Restore button, and then the VoIP Phone will restore to default and automatically restart.


Restore Default Settings
You could click the restore button to restore the factory settings.
Restore default settings:
Restore

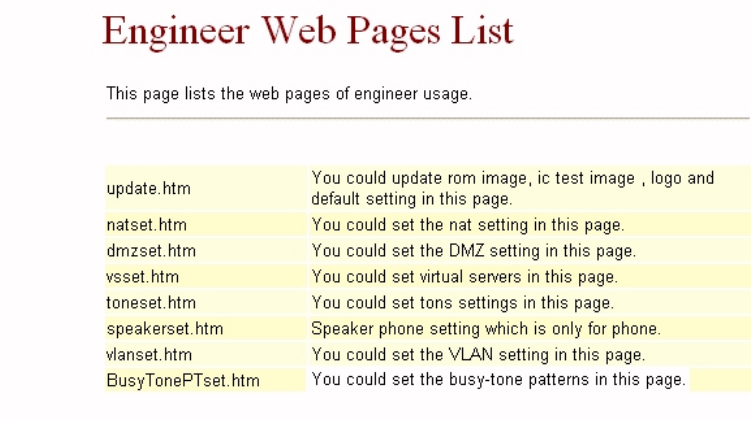
3.12 Reboot

If you want to restart the VoIP Phone, you can just click the Reboot button, then the VoIP Phone will reboot automatically.

4 Engineer Web pages

4.1 Engineer Web Pages List

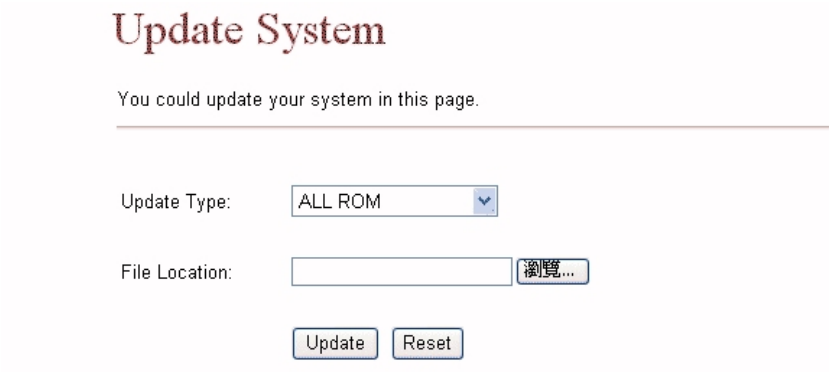
After login the system, change the webpage to crystal.htm manually (Example: http://192.168.1.100:9999/crystal.htm）. In this webpage you will see a list of engineer web pages.


Engineer Web Pages List
This page lists the web pages of engineer usage.
update.htm
You could update rom image, ic test image , logo and default setting in this page.
natset.htm
You could set the nat setting in this page.
dmzset.htm
You could set the DMZ setting in this page.
vsset.htm
You could set virtual servers in this page.
toneset.htm
You could set tons settings in this page.
speakerset.htm
Speaker phone setting which is only for phone.
vlanset.htm
You could set the VLAN setting in this page.
BusyTonePTset.htm
You could set the busy-tone patterns in this page.

4.2 Update.htm

First login to this system，then change Web page to http://ip address:9999/update.htm（Example: http://192.168.1.100:9999/update.htm）. In this page you can update the system's ROM code, IC Test, Default setting.

Note: Please be careful when you update ROM code. If you update using a wrong file or during the update process the power is off, the system will be crashed.

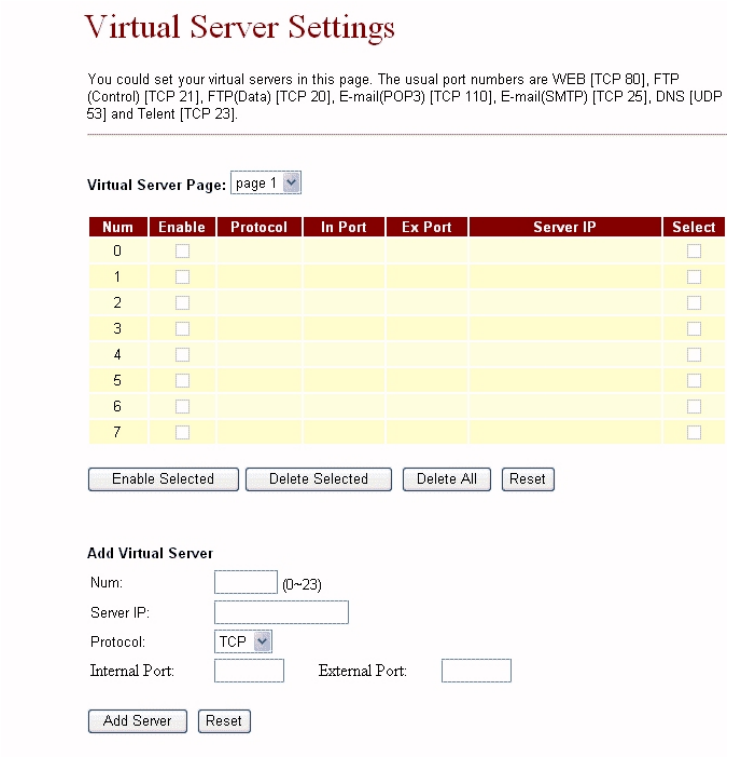


4.3 Dmzset.htm

First login to this system, then change Web page to http://ip address:9999/dmzset.htmformat.（Example:http://192.168.1.100:9999/dmzset.htm）. In this page you can setup the DMZ function. You need to enable/disable this function and set the IP address for DMZ.

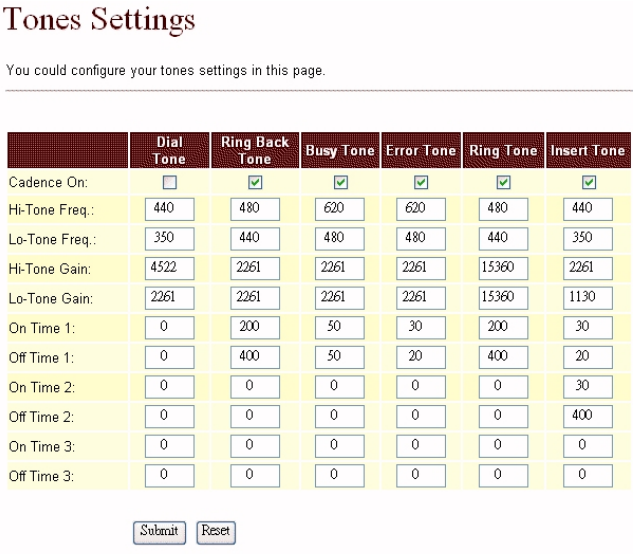
4.4 Vsset.htm

First login to this system, then change Web page to http://ip address:9999/vsset.htm.（Example:http://192.168.1.100:9999/vsset.htm）. In this page you can setup the Virtual Server function.


Virtual Server Settings
You could set your virtual servers in this page. The usual port numbers are WEB [TCP 80], FTP (Control) [TCP 21], FTP(Data) [TCP 20], E-mail(POP3) [TCP 110], E-mail(SMTP) [TCP 25], DNS [UDP 53] and Telent [TCP 23].
Virtual Server Page: page 1
Num Enable Protocol In Port Ex Port Server IP Select
0 1 2 3 4 5 6 7
Enable Selected
Delete Selected
Delete All
Reset
Add Virtual Server
Num: (0~23)
Server IP:
Protocol: TCP
Internal Port:
External Port:
Add Server
Reset

4.5 Toneset.htm

First login to this system, then change Web page to http://ip address:9999/toneset.htm.（Example: http://192.168.1.100:9999/toneset.htm）. In this page you can setup the Tone frequency and cadence to meet your requirement.


Tones Settings
You could configure your tones settings in this page.
Dial Tone
Ring Back Tone
Busy Tone
Error Tone
Ring Tone
Insert Tone
Cadence On:
Hi-Tone Freq.: 440 480 620 620 480 440
Lo-Tone Freq.: 350 440 480 480 440 350
Hi-Tone Gain: 4522 2261 2261 2261 15360 2261
Lo-Tone Gain: 2261 2261 2261 2261 15360 1130
On Time 1: 0 200 50 30 200 30
Off Time 1: 0 400 50 20 400 20
On Time 2: 0 0 0 0 0 30
Off Time 2: 0 0 0 0 0 400
On Time 3: 0 0 0 0 0 0
Off Time 3: 0 0 0 0 0 0
Submit
Reset

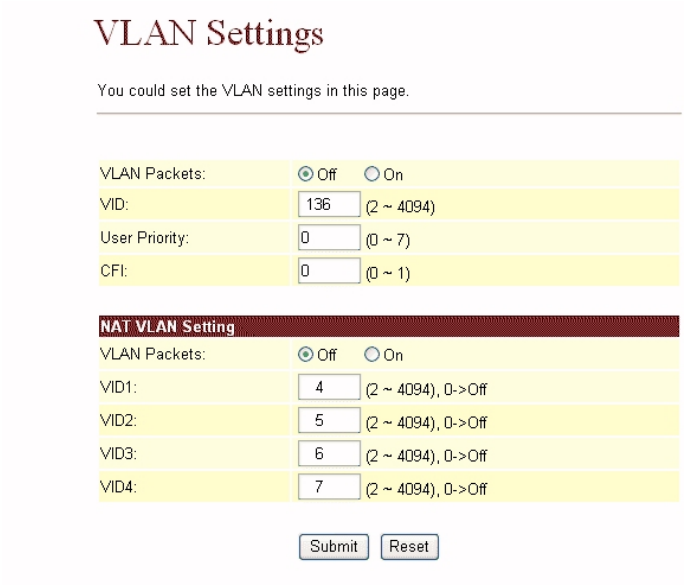
4.6 Speakerset.htm

First login to this system, then change Web page http://ip address:9999/speakerset.htm.（Example:http://192.168.1.100:9999/speakerset.htm）. In this page you can setup the Speaker function to meet your requirement.

4.7 Vlanset.htm

First login to this system, then change Web page to http://ip address:9999/vlanset.htm.（Example:http://192.168.1.100:9999/vlanset.htm）. In this page you can setup the VLAN function.

1) VLAN Packets: if select On, the ip phone will merely receive packages with label that is the same as VID.
2) VID: please refer to your ITSP for VID.
3) User Priority: total 8 levels. IEEE 802.1P defines 3 level of User Priority. Please refer to your ITSP for the value.
4) CFI: Canonical Format Indicator. In Ethernet, it is set as 0. CFI is used for compatibility between Ethernet and Token Ring. If CFI is 1, received packages will not be forwarded to ports whose CFI is 0.
5) NAT Mode: when it is NAT mode, you can divide the devices, which connect with the ip phone, into 4 groups. In addition, you can set different VID for 4 groups.


VLAN Settings
You could set the VLAN settings in this page.
VLAN Packets: Off On
VID: 136 (2 ~ 4094)
User Priority: 0 (0 ~ 7)
CFI: 0 (0 ~ 1)
NAT VLAN Setting
VLAN Packets: Off On
VID1: 4 (2 ~ 4094), 0->Off
VID2: 5 (2 ~ 4094), 0->Off
VID3: 6 (2 ~ 4094), 0->Off
VID4: 7 (2 ~ 4094), 0->Off
Submit Reset